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New contract supports troops in Bosnia

Article by Denise Tatu
Photo by Bob Gruber
Transatlantic Programs Center

Life-support areas like this one in Slavonski Brod, Croatia, will be maintained by the new Operation Joint Guard sustainment contract.

U.S. troops in the Balkans noticed no difference in the quality of logistics service when the Army's Logistics Civil Augmentation Program (LOGCAP) contract expired at the end of May. That's because a new Operation Joint Guard sustainment contract recently awarded to Brown and Root Services Corporation took effect.

"U.S. Army Europe (USAREUR) wanted to assure the continuity of services with minimum risk to the health and safety of the troops," said James Dalton, project manager. "With this contract, we are able to identify expected costs for each fiscal year and provide a seamless changeover from the LOGCAP contract to the new sustainment contract."

In November 1995, Brown and Root began providing engineering and logistics services to U.S. troops in the Balkans under the Army's LOGCAP contract for one year. Because of a continuing need for U.S. troops in Bosnia, the Transatlantic Programs Center (TPC) modified the LOGCAP contract to extend until May 27, 1997.

In February, USAREUR asked TPC to award a new contract to sustain troop support services for Operation Joint Guard. The Office of the Assistant Secretary of the Army (Research, Development and Acquisition) approved awarding the contract sole-source to Brown and Root to avoid disrupting troop activity and duplicating costs such as mobilization and demobilization, start-up costs, and recruiting and processing personnel.

The contract was awarded May 15, 1997, and will run through May 1998. The estimated value is $137.9 million. If necessary, there can be two six-month option periods estimated at $68.6 and $63.8 million, respectively.

Flexible Contract

The contract is an Indefinite Delivery/Indefinite Quantity (IDIQ) contract, with work issued to the contractor by task orders.

According to Karen Stotler of Contracting Directorate, an IDIQ contract is for services that do not specify an exact quantity (other than a minimum or maximum quantity), but the contract allows the task orders to be issued to match customer requirements. In this case, the contract guarantees a minimum payment of $500,000.

"If a customer's requirement is general and the scope of work hasn't been fully defined, it allows the contractor to go forward," Stotler said. "In turn, if the customer can define the requirements exactly, we can issue a fixed price task order."

Stotler said three task orders have been issued to the contractor initially, to run through Sept. 30. The task orders are for Bosnia/Croatia support ($25.7 million); for logistics support in Hungary ($16.2 million); and for Brown and Root's managerial and administrative costs, including mobilization, demobilization, shipping, freight, and insurance ($5.6 million).

Services provided include base camp maintenance; basic life support (food, water and laundry service), general and equipment maintenance, and transportation.

Mission: Possible

An Integrated Product Team (IPT) was formed earlier this year to develop, award and administer the contract, because of the short suspense given by USAREUR. Dalton said the IPT eliminates the traditional barriers that sometimes form around groups involved in a contracting procedure and allows more open communication.

"There are many advantages to an IPT," Dalton said. "It reduces the time needed to define project requirements, creates ownership by all members, eliminates walls that hinder communication, allows the team to set its own goals and methods of accomplishment, and builds sound relationships among members and organizations."

"Members of the Defense Contracting Audit Agency on the team were able to audit proposals as we went along, instead of taking the traditional 30 days to audit a proposal," said Stotler. "Since we all got to know each other pretty well, we felt comfortable bringing up issues as they occurred. Everyone's ideas were heard."

"It sounds like a cliche, but the team was empowered to get the job done," said Dalton. "We had the authority."

John Downey of Brown and Root said the company is pleased with the IPT process. He was first asked to form an IPT to award the six-month extension to the LOGCAP contract. "Using the IPT has facilitated getting things done," he said. "It has been a success story for Brown and Root in our dealings with the government."

Downey noted that Brown and Root has hired more than 450 U.S. nationals and 2,800 local nationals in the Balkans. He agreed that the transition from the LOGCAP contract to the new sustainment contract will not be noticed. "They will never know the difference," he said. "The quality of services will remain the same."

Alan Moses, who works in program analysis at USAREUR, also praised the effectiveness of the IPT process.

"It was a pleasure to participate with various government agencies, all with sometimes conflicting agendas, and a defense contractor, and quickly come up with viable solutions to complex issues which save the taxpayer money," said Moses. "We were all focused on the same goal; by working together, we accomplished what would have been impossible without the IPT concept."

Lt. Col. Albert Bleakley, deputy commander of TPC, and chief of the Corps' Base Camp Coordination Agency in the Balkans, said there was "great jubilation" at USAREUR after the contract was awarded.

"I want to thank the IPT members for getting the new contract in place and defined so quickly," Bleakley said. "When the Chief of Engineers visited we mentioned this effort as an example of the Corps being relevant to the operational Army. It also demonstrates the 'One Door to the Corps' concept and keeps us involved in a large total maintenance contract in support of deployed troops."

There are about 8,500 U.S. troops in the Balkans. In November 1996, then-Secretary of Defense William Perry announced the troops would remain 18 months beyond the original December 1996 withdrawal, with reviews to be held every six months.

Engineering for peace

Corps people conduct survey, change minds about Cambodia

By Alexander Kufel
Pacific Ocean Division

Travel on business to exotic and remote places in Asia and the Pacific is a pleasant benefit for Pacific Ocean Division (POD) employees. But when the Royal Cambodian Armed Forces requested a team of construction experts be sent to Phnom Penh, the Cambodian capital, the volunteer response was underwhelming.

Prevailing opinions about Cambodia's physical and political climate made for a shortage of volunteers, said Project Manager Kit Lee. Those who finally volunteered to go understood the risks, but returned to Honolulu talking about an enriching experience in an Asian culture rarely seen by western travelers.

Four engineers made the trip. They spent two weeks in Cambodia conducting a site survey of the Royal Cambodian Armed Forces (RCAF) engineering headquarters compound, engineering training school, and bridge-building battalion, as well as reviewing master plans for eventual U.S. assistance.

"That was easy," said Richard Schiavoni, chief of Electrical Branch. "But my first responses were a mixture of horror and dread thinking about the notorious 'killing fields' and the serum shots I'd have to get before departure."

"We didn't receive hazardous duty pay for going there," said Louis Muzzarini, chief of Construction Services Branch. "But U.S. military personnel assigned there do get it. We didn't know what we'd find!"

What they found were gracious hosts in Gen. Kwann Seam, chief of the Royal Cambodian Engineers, and his staff, and a willingness to help them accomplish their mission. "Our mission essentially was to review existing plans and help prioritize projects for the U.S. State Department's foreign military program," said Schiavoni, defacto team leader. "We were interested in helping the RCAF get the best product we could. I came away very impressed with the sincerity of their leadership."

"I'm interested in improvements to our infrastructure," Seam told the group through an interpreter. "I want engineering for peace, not war."

Visiting sites, reviewing plans, and conferring with Cambodian officials was tempered by 100-degree temperatures and 85-90 percent humidity, unfamiliar food, insects, talk about rare diseases the group hardly knew existed, and the shock of being set down in a culture they knew little about. There were frequent reminders of years of war from rumors, checkpoints, and minefields. A visit to Tuol Sleng, the former elementary school campus that had functioned as a prison and interrogation center during the Khmer Rouge regime was a sobering experience.

Corps representatives and members of the Royal Cambodian Engineers review engineering plans during a conference. (Photo courtesy of Pacific Ocean Division)

Perhaps most surprising, they found Phnom Penh to be an historic city, almost untouched by years of conflict between warring factions. But its beauty is fading rapidly from poverty and neglect.

"When the Khmer Rouge took over the city, everyone that could, left," said Muzzarini.

Their hosts, the Royal Cambodian Armed Forces, were cordial, professional and well-organized. The food, although different, was plentiful and good. They even got to be celebrities for a day when they saw themselves on one of the television stations.

The group was able to perform their tasks just like at home, although differences between the U.S. and Cambodia ranged from merely frustrating to dramatic. For example, cost estimates are not easily obtainable by telephone.

"You can't just go to the yellow pages," said James Pak, an architect. "There aren't any! And you do everything through interpreters."

"We received cautionary advice about wandering off established paths, as many areas are still heavily mined," said Schiavoni. He displayed a souvenir "Danger" sign that someone gave him. It is estimated that more than 1,300 square miles of Cambodia are still mined. Since 1979, about 40,000 Cambodians have been injured.

"Also, we weren't fully prepared for the fact that the entire country seems to observe 'siesta' and it's hard to get things done in the early afternoon," said Muzzarini.

The hotel they stayed in was rated well, but spartan by western standards. People from all over the world stayed there, drawn to Cambodia by Angkor Wat. The ancient temple complex is accessible only by air because foreigners are not permitted on the trains, and road and waterway travel can be hazardous due to Khmer Rouge soldiers and bandits in the countryside.

While there were many things to worry about, the group seemed to be in consensus about the food.

"The food was good, although some of the odors took getting used to," said Pak. "But you could find restaurants from all different cultures."

Volunteers who went to Cambodia also got to see some of the country's beauty, like this temple. (Photo courtesy of Pacific Ocean Division)

"You wouldn't believe the size of the prawns," said Schiavoni. "Each one seemed as large as a lobster!"

They also agreed that common sense was the best way to keep out of trouble. They stuck pretty much together, didn't wander the countryside, or go out alone late at night. Each asserted that the fears they had before entering Cambodia were relieved in part by what they actually saw once they got there. Life in Cambodia, while different from life in America, seemed normal enough, without the overwhelming presence of the military that they had imagined. The people they met were friendly and helpful, and it was a broadening experience to learn firsthand about another culture.

"One down-side to the trip was that we didn't get to meet many Cambodian people outside of the workplace," said Muzzarini. "However, all in all, I'd say the benefits to each of us for going far outweighed the risks."

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New runway will speed deployments

By Vince Elias
New York District

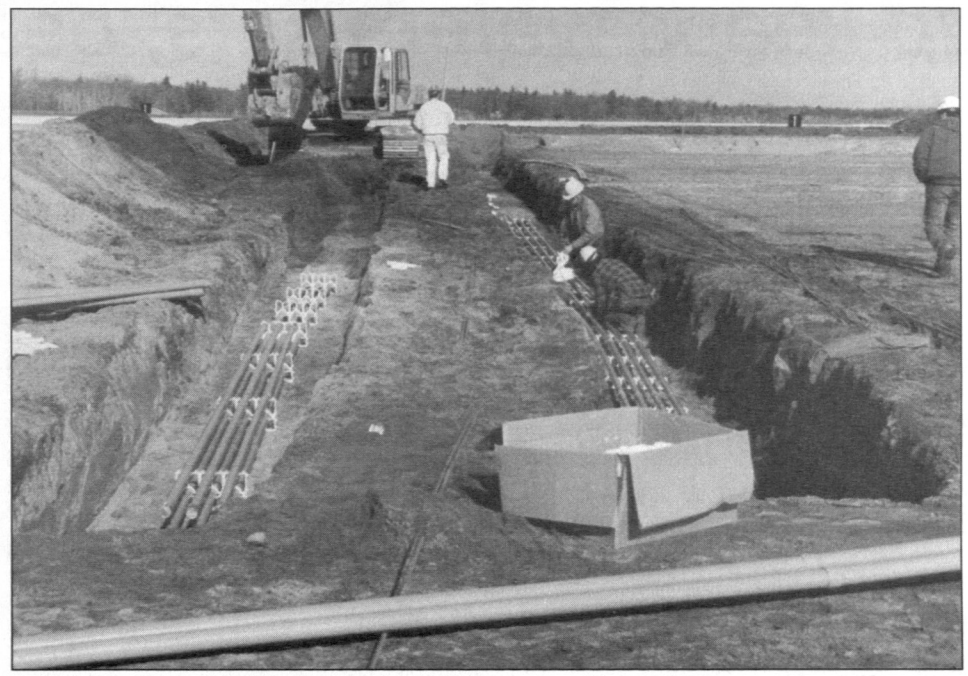
When military aircraft take off from Fort Drum in 1998, they'll head into the clouds from a new two-mile runway.

A $37 million airfield construction project is well underway at Fort Drum, N.Y. When complete, it will dramatically enhance the 10th Mountain Division's ability to deploy rapidly.

Base closure initiatives have officially closed Griffiss Air Force Base in upstate New York, where the Air Force maintains a runway in the event the 10th Mountain Division deploys. At the request of the Air National Guard, the Air Force came to New York District to build a 10,000 foot runway at Fort Drum.

According to Bob Gerritts, technical design manager, coordinating the tasks of many key players into a unified plan of action was a significant challenge in this project. New York District tapped the talents of Omaha District (the U.S. Army Corps of Engineers' Transportation Center of Expertise) for help in designing and building the runway. "It was a massive coordination effort, and all the pieces came together," Gerritts said.

The project came to life through the partnering of New York and Omaha districts, Fort Drum, Air National Guard, Lane Construction and Stanley Consultants. It was also reviewed by the Air National Guard Readiness Center, Air Mobility Command, U.S. Army Forces Command, and the U.S. Army Aeronautical Services Agency.



When completed, the new runway will be capable of handling six C-5 Galaxy transport planes simultaneously. (Photo courtesy of New York District)

When the runway is finished, the 10th Mountain Division will deploy right from their doorstep instead of commuting 15 miles to Griffiss AFB. This improves mobilization response time, and improves safety by eliminating the potential for accidents that could occur in transit to Griffiss AFB.

"We can get the mission done quicker, we can get it done safer, and we can get soldiers home quicker," said Gen. Dennis Reimer, U.S. Army Chief of Staff, at the recent groundbreaking.

"When we're done, we'll have a world class deployment center," said Maj. Gen. Thomas N. Burnette Jr., the 10th Mountain Division's commanding general.

Working on a fast-track schedule, the huge project is scheduled for completion in July 1998. New York District received authorization to proceed with the design in May, 1996. Stanley Consultants designed the runway, supervised by the district, in nine months.

"The project is on time and on schedule," said Joe White, Fort Drum Airfield Commander.

The project calls for demolishing the existing 5,000 foot runway and replacing it with one twice as long that will include taxiways, parking ramps, de-icing facility, munitions loading point, runway lighting, navigation support, and site improvements. Another primary feature is a "state-of-the-art" instrument landing system for both ends of the runway.

Other features such as lighting, signage, storm water systems, and relocating existing tank trails and roads will complete the deployment center. Contract options call for an addition to the fire station and departure airfield group facility.

The new runway will handle any aircraft in today's inventory including the C-5 Galaxy and 747. Presently, only smaller aircraft such as the C-130 can land at the airfield. When completed and in full operation, the expanded airfield will be able to handle six C-5s on the ground simultaneously.

By project completion, the contractor, Lane Construction, will have placed 1.2 million cubic meters of bulk fill and 125.8 thousand cubic meters of concrete. The concrete will be produced from an on-site plant with a capacity of making 400 cubic yards per hour.

Management and oversight of this project falls on J.C. McCrory, senior project engineer, and his crew supported by Stanley Consultants.

"This project is a great team effort," said Col. Gary Thomas, New York District Engineer.

Contractor bows out; districts take over

By Jim Pogue
Memphis District

When a contractor bowed out of a project, St. Louis and Memphis Districts teamed up and finished the job with their own people.

The Midwest flood of 1993 severely taxed the flood control infrastructure of levees, floodwalls, and pumping stations throughout the Mississippi Valley. The Big Swan Pumping Station, just west of St. Louis, was no exception.

The facility keeps 12,500 acres of rich farmland in the Illinois River bottoms, circled by a ring levee, dry and productive. Three pumps push water trapped inside the levee through three 80-foot-long steel pipes. Two of the pipes are 36 inches in diameter, and the other is 48 inches. Each of the three pipes pass through the levee.

During the 1993 flood, weeks of high water against the levee caused significant seepage, dangerously weakening the area where the pipes passed through the levee.

In response to this situation, St. Louis District awarded a contract to a private firm to move the pipes and prevent further weakening of the levee. The contractor was to build supports for the pipes to take them over the levee instead of through it. They were also to install inspection manholes in the pipes and make other repairs.

The contractor got as far as ripping out two of the three pipes before realizing he was in over his head and could not complete the repairs. Pumping station operators were edgy, since at that point they could only operate one of the three pumps.

All work stopped while St. Louis District looked for another option. Maybe they could get help from within the Corps.

So St. Louis and Memphis districts put their heads together and came up with a solution. Employees from Memphis District's Bank Protection Party #11 and Ensley and Greenville (Miss.) Engineer Yards could apply their knowledge and skill in excavation work and pipefitting to restore the Big Swan Pumping Station to full operation.

Terry Phifer, metalworker welder leaderman, and welder Dwight Alston met with St. Louis District officials in early April to work out construction details. They made a number of suggestions to make the job go faster. Phifer also worked up an estimate of steelwork that needed to be done.

St. Louis District officials liked what they saw and quickly gave Memphis District the nod.

Alston, along with Richard Blake, Henry Jones Jr., and Roy Wellington, construction foremen from the Greenville Engineer Yard, arrived at the pumping station on April 14. They immediately set to work with heavy equipment excavating the area. They also built concrete foundations to support the pipeline that Phifer and Alston had designed earlier at Ensley Engineer Yard.

Meanwhile, in Memphis, Phifer and several of his fellow employees began prefabricating supports for the pipeline. The supports (called saddles) were made of steel beams. Prefabricating the saddles was essential to make the project successful and timely.

Phifer and the rest of his crew arrived at Big Swan on April 21 and began installing the pipe saddles and welding the huge sections of pipe together.

Because the pipeline would now go over the levee instead of through it, Alston and the other workers had some fancy welding to do. They had to weld the pipe at peculiar angles, but still preserve the strength it needed to carry the huge volume of water it had to handle.

"I was impressed with the work Dwight and his guys did on welding the pipe at those unusual angles," said Blake. "This project gave us a unique opportunity to work together and learn from each other."

By May 7, just three weeks after they arrived at the site, Memphis workers packed up their tools and drove back to Memphis and Greenville. The pipes were again firmly in place, and pumping station personnel could once again operate all three pumps to keep the Big Swan Drainage District dry.

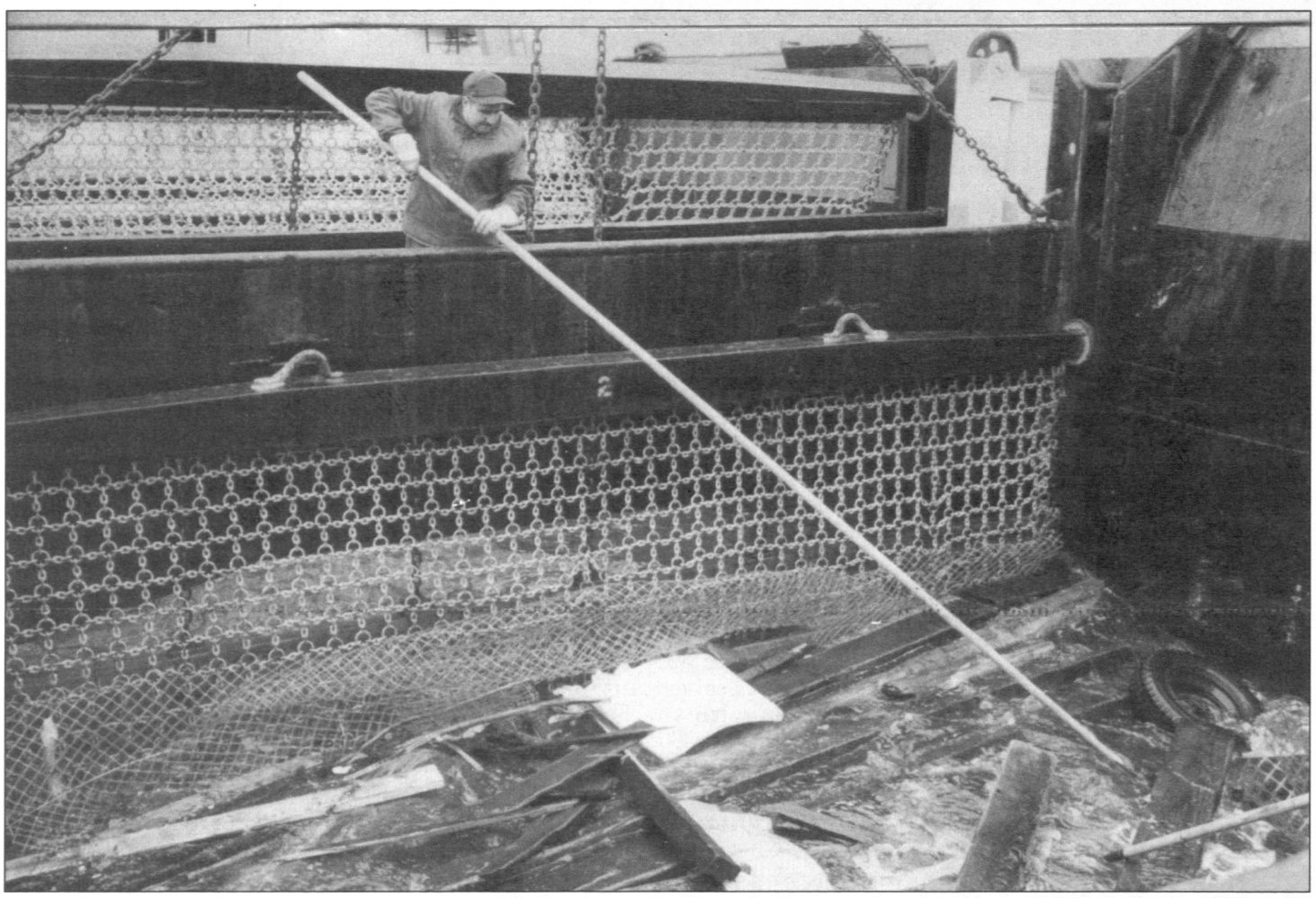
Clean sweep

Trash pick-up keeps waters safe, beaches clean

Article by Jack Friedman
Photo by Oreste Torres
New York District

They call it the "floatables season" — that time of year when spring and summer heavy rains wash all sorts of floating trash into the harbor waterways of New York City and New Jersey.

During floatables season, U.S. Army Corps of Engineers harbor boat crews under New York District's Operations Division do a lot more of what they normally do all year — find and pick up floatables to keep New York metropolitan waters safe for navigation and recreation.



Sweeping up floating trash is an important mission for New York District during the summer.

The floatables season (May 15 to September 15) was designated in 1989 after significant floating debris (wood, plastic, paper, and medical waste, notably syringes) washed up on ocean beaches in New Jersey and the south shore of Long Island in 1987 and 1988.

The public outcry led the Corps and other federal and local agencies to formulate a four-point plan:

- Helicopter and vessel surveillance.
- Scheduled routine cleanups planned during full and new moon tides and heavy rains.
- Non-routine cleanups when necessary.
- Create a communications network to help participating agencies coordinate their resources and efforts.

Local and federal agencies which joined the Corps in this program include the New Jersey Department of Environmental Protection, the New York State Department of Environmental Conservation, the New York City Department of Sanitation, the Coast Guard, and the Environmental Protection Agency.

The district's program has been a success — not a single regional beach has been closed during the Nineties due to floatables contamination.

Annually, New York District vessels collect more than 800 tons of floatables from New York Harbor. Wood makes up about 90 percent of the material, with tires, plastic waste, cardboard, and seaweed accounting for virtually all the rest.

Corps helps raise tugboat in Panama Canal

By Ed Voight
Philadelphia District

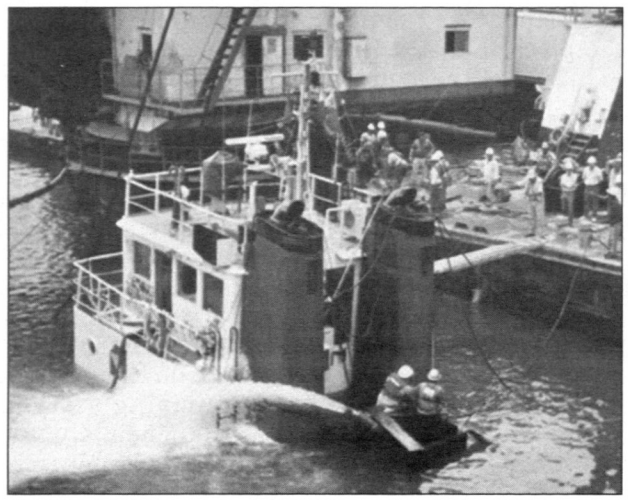
On April 22, the tugboat *San Pablo* sank in 40 feet of water in the Panama Canal, closing down the East Lane of the Pacific entrance to the Miraflores Locks. But within six days it was refloated and the canal fully open to traffic, thanks to help from the U.S. Army Corps of Engineers' Marine Design Center (MDC) in Philadelphia District.

Two senior naval architects, Arthur DeSilva and Chuck Coad, flew down to the Republic of Panama the day after the sinking to provide technical assistance to the Panama Canal Commission (PCC) for the salvage operation.

They had been specifically requested by Thomas Drohan, director of the PCC's Engineering and Construction Bureau.

Drohan appointed DeSilva as advisory salvage engineer. DeSilva reviewed, approved, and helped implement the salvage and removal plan. Coad's key role was building a computer model of the tug to evaluate feasibility and provide data in support of the plan.

The *San Pablo* was pitched 140 degrees to starboard, with the keel up and the superstructure stuck in 10 feet of mud. The plan to refloat it involved the following steps:



The tugboat *San Pablo* rises as water is pumped out. (Photo courtesy of the Marine Design Center)

- Use divers and the floating crane *Goliath* to assess the position of the sunken tug.
- Cut away wires, chains and cables to detach the tug from the plow it had been towing to minimize the refloating effort.
- Attach lifting wire cables around the wreck, then run them up to the hook on the floating crane *Hercules.* Like unraveling a yo-yo, this rotated the vessel to an upright position. It also shifted the full weight of the tug to the canal floor, minimizing the load on the crane.
- Build a cofferdam around the skylight of the engine room, allowing submersible dewatering pumps to be lowered into the vessel.
- Plug up all other openings and dewater the engine room, substantially reducing the weight of the wreck.
- Raise the wreck with the *Hercules* until the deck breaks the surface.

The operation began April 24 with an expected completion date of May 2. But the *San Pablo* refloated on April 27 and towed to Balboa Harbor shortly after midnight on April 28.

"We appreciate the dedicated response of Mr. DeSilva and Mr. Coad that resulted in their arrival at the Panama Canal within 24 hours of Mr. Drohan's phone call to USACE-MDC," said Alberto Aleman Zubieta, Administrator (chair) of the PCC. "The transfer of technology that took place during the record-breaking six-day salvage operation will also benefit us and world commerce. Thanks again for a job well done."

Corps digs into Florida sand shortage

By Christina Plunkett
Jacksonville District

Believe it or not, Florida is running out of sand. Jacksonville District sponsored a conference April 24-25 to discuss using non-domestic sand for hurricane and beach protection projects in South Florida.

The Second Dade County Beach Renourishment Conference in Jacksonville, Fla., gathered coastal experts from federal, state, and local agencies and governments, academia, Congress, and foreign nations.

Plans are underway for a test beach in South Florida using "foreign" sand. Issues concerning the test beach, along with identifying potential sources of sand, were the main purposes of the conference.

Off-shore sand deposits for beach renourishment are dwindling, especially on the southeast coast of Florida off Broward and Dade counties. They may be depleted in five years. Finding alternate sand sources is a crucial challenge for beach experts.

While efforts to identify alternate sources have been underway for several years, this conference gave the 80-plus participants an opportunity to express their views on using non-domestic sand.

Charlie Stevens gave an overview of the proposed test schedule and moderated the panel discussions. He is the Corps' manager for several South Florida and Gulf Coast counties, including the proposed test beach site at the Dade County Beach Erosion Control and Hurricane Protection Project.

"To properly analyze the fill, we anticipate the test beach will occupy at least one mile on the north end of Miami Beach," Stevens said. "The test fill will be placed so it won't be noticed by the rest of the beach. This way, past data on previous beach fills with native sand can be compared to the non-domestic sand."

Doug Rosen, a Corps coastal geologist, discussed sand source specifications. He said that a consultant is soliciting all identified sand sources. When the Corps receives this report, a generic specification for sand for Dade County beach renourishment will be written.

The generic sand specification will encompass grain size, composition, color, and anticipated performance for all upland and non-domestic sand sources including aragonite, calcium, and quartz sands.

Of all possible sand sources discussed, the Caicos Islands, about 550 miles southeast of Miami, were the most interested in working with the Corps. Representatives from the Dominican Republic and Guyana also said their countries would like to be considered.

Because the test beach's purpose will be to experiment with adapting a foreign sand to federal projects, there

Comparing beach erosion and renourishment at Miami Beach shows the need for fresh sand in Florida. (Photos courtesy of Jacksonville District)

are many issues to consider. The most important is the environment. Kenneth Dugger, Jacksonville's Chief of Environmental Coordination Section, spoke on environmental criteria and anticipated coordination requirements.

Dugger explained that Southeast Florida's beaches are made up of a quartz-carbonate mix which is different from the aragonite being considered as future beach fill. The main difference is that quartz sand is harder and darker and gets hotter than aragonite. Because of these differences, there are many environmental issues to explore before, during, and after the beach test.

According to Dugger, questions include:

- Possible impacts to nesting sea turtles, coral reefs, sea grasses, and water quality in the test area.
- The likelihood of intruding harmful organisms from non-domestic sand.
- What effect aragonite sand will have on native plants and animals.

Environmental experts from the Waterways Experiment Station (WES), anticipating the need for alternate sources to replenish Florida's beaches, have already done nesting experiments with loggerhead sea turtles.

Coordinating with the University of Florida, Florida Atlantic University and Dade County, an experimental sea turtle hatchery was set up on Miami Beach July-October 1995. They chose the loggerhead because one-third of all loggerheads nest in the southeastern U.S.

Dr. Dave Nelson, WES, reviewed the findings. The analysis considered three areas — nest success (incubation period, hatching success, and hatchling size); temperature differences between sand and nests; and hatchling sex ratios.

Nests were created with four types of sand — native Miami Beach sand, Bahamian aragonite sand, offshore borrow source sand, and a one-to-one mixture of renourished and aragonite sand.

Although incubation was longer in aragonite because nest temperatures were cooler, there were no differences in hatchling size or sex ratios in the four sand types.

Tom Martin, Coastal Design Section, summarized engineering and design requirements for the test beach. He said program goals include comparing beach fill performance, focusing on environmental effects, and evaluating coastal processes such as patterns of sediment transport.

Martin also reviewed the desirable characteristics of a test beach:

- The fill should be in an eroding area.
- It should be placed far from inlets, yet avoid irregular offshore features.
- The amount of fill should be at least 500,000 cubic yards and occupy a minimum of one mile of shore.

Kids learn safety around construction

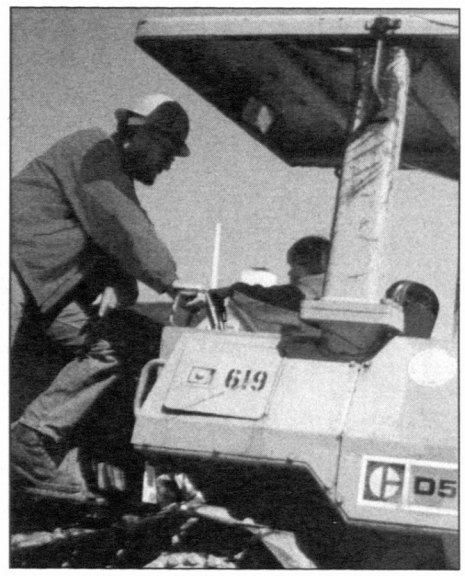
Article and Photo
By Amy Goebelbecker
Norfolk District

Norfolk District, the City of Virginia Beach, and S.B. Ballard, Inc. sponsored a Kid's Construction Safety Camp at the Virginia Beach Oceanfront on May 17. They wanted to remind local children to be careful on the beach this summer during construction of the Virginia Beach Hurricane Protection Project.

The Hurrah Players, a high school theater group, presented several safety skits. The messages told children to stay away from the orange safety fences, which access roads are safe, to quickly move away from backing vehicles, and never hide or play in the pipes.

About 100 children attended the safety camp, which also displayed the Virginia Marine Science Museum's Mobile Marine Lab, and two of S.B. Ballard's work trucks.

S.B. Ballard, Inc. is the contractor for the beach project. "When people are backing up, it's important to remember they can't see well," said



A boy at the Kids' Construction Camp explores a bulldozer while an S.B. Ballard employee keeps watch.

Steve Ballard, president and CEO. "When you hear the beeping of a truck backing up, stop, look, listen and get out of the way. That truck weighs 50 tons."

The children received coloring books discussing construction safety, stickers, and toy hard hats.

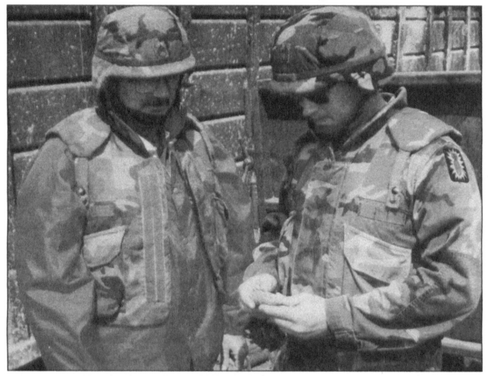
Richard J. Contreras Jr., traveling teacher for the Virginia Marine Science Museum, also addressed the children before inviting them to see the mobile museum.

"The museum is here to help the U.S. Army Corps of Engineers protect the loggerhead sea turtles," Contreras said. "The Corps works with other organizations to look for the turtle nests and turtle tracks. If you see a sea turtle, tell the police or the museum."

Dave Leopold, a 40th street resident, said he thought the event was great, and Leopold's children agreed. Megan, 5, said she thought it was good because it was funny, and Ryan, 7, said he had fun and liked the free construction hat.

"This is what all companies should do — go directly to the public," said Ballard. "The public needs full understanding of what's being done and how it's being done. If you explain it to them, then they'll accept it. If just two or three children listen today, it will be worth it."

Corps exorcizes explosive ghosts



Dusty Rhodes (left), Huntsville Safety Specialist, and Sgt. 1st Class Tim Fortney, 259th Ordnance Co., examine a small-arms round. (Photo courtesy of Los Angeles District)

Explosion mobilizes explosives experts

By Herb Nesmith
Los Angeles District

"Don't touch anything. Watch your step," warned Jim Walker, a Los Angeles District (LAD) explosives safety specialist. He was giving a safety briefing to a group of Corps people about to enter a scrap yard where live ordnance was found.

Workers at the Fontana, Calif., site learned the hard way that not all scrap military munitions are inert. One morning a worker was applying a torch to a 105mm howitzer round to separate the different kinds of metal when the round exploded, killing him instantly and injuring two other workmen.

A San Bernardino County sheriff's deputy patrolling nearby heard the blast and rushed to the scene. He called for the department's bomb squad, who looked around and discovered other suspect military ordnance ranging from small-caliber up to 165mm projectiles, bombs, rockets, rocket motors, and missiles. The police immediately closed down the yard, and another site not far away operated by the same dealer, Dick's Auto Wreckers.

The California Highway Patrol closed the street at each end to keep away the public, the curious, and souvenir hunters. The Sheriff's Department asked for help from Army explosive ordnance disposal (EOD) specialists. Soldiers from the 259th Ordnance Company at Fort Irwin, some 90 minutes north in the Mojave Desert, answered the call and were there in two hours.

They were joined by EOD specialists from other ordnance units in San Diego; San Jose (Moffett Field); Tooele Army Depot, Utah; and Fort Carson, Colo. Commanders from their parent units, the 548th Ordnance Battalion at Fort Lewis, Wash., and the 52nd Ordnance Group at Fort McPherson, Ga., flew in to evaluate conditions in searching the yards for more unexploded ordnance (UXO).

The Secretary of Defense had a high interest in the incident, as did the Secretary of the Army, and the U.S. Army Corps of Engineers was directed to support the soldiers at the sites. Corps people from LAD and the Huntsville Support Center, the Corps' national center of expertise in ordnance and explosives, were quickly dispatched.

The soldiers, the Corps, and the county sheriff worked together out of a police command post, a motor home fitted with communications gear and work areas.

Army EOD searched the site for explosive ordnance, sifting through huge piles of scrap metal. They eventually found, removed, and destroyed 111 ordnance materials, ranging from highly-sensitive to moderate-hazard explosives. They also disposed of some items which contained only explosive residue.

"We destroyed it so no one would become concerned," said Lt. Col. Donald Coe, commander of the 548th Ordnance Battalion from Fort Lewis.

"This has certainly been a long ordeal," said sheriff's explosives technician Sgt. Bob Hall. "But I feel comfortable that the Army ordnance experts did a great job in examining for dangerous shells."

Huntsville Center awarded a contract to Ordnance Explosives/Environmental Services (OES), and the following day the Corps of Engineers took over the UXO cleanup. EOD soldiers returned to their posts. OES quickly contracted for security services, and the San Bernardino County Sheriff's Department also departed.

The contractor established logistical and administrative processes and worked on scope-of-work and safety plans. Those plans were approved by the Corps before the contractor could proceed.

While sifting through tons of scrap metal is the job of the Corps' contractor, another major task is finding out how UXO got in the scrap yard. The Corps will not deal with that issue — with public safety its priority, the Corps' job is to identify, remove and dispose of UXO.

A member of the bomb removal team from Human Factors Applications, Inc., uses a metal detector to search for buried ordnance. (Photo courtesy of Huntington District)

Mortar ordnance found in rec area, removal initiated

By Kathy Rea
Huntington District

A strange twist of fate has returned Wally Dean to the area where a World War II mortar round almost killed him more than 40 years ago.

Today, Dean, a fish and wildlife biologist, is Huntington District's environmental manager for the Dolly Sods Wilderness ordnance removal project. The project will remove unexploded munitions from trails and camp sites in the wilderness area. The munitions were left from World War II training exercises.

The 10,215-acre Dolly Sods Wilderness in West Virginia is part of the Monongahela National Forest. In World War II, it was part of the two million acre West Virginia Maneuver Area, used for artillery and mortar training.

Although the area was searched and cleared by military explosive ordnance disposal teams after the war, at least 20 pieces of ordnance have been found in recent years.

Dolly Sods Wilderness and Dolly Sods North were both selected for study based on findings by Huntington District the ordnance is an imminent danger to the hikers and campers that visit the area every year. To date, these unexploded munitions have caused one severe injury and several near misses. The latest incident occurred during bear hunting season in 1994.

Dean is well aware of the danger. In December 1951, Dean was a teenager out deer hunting with friends at Blackbird Knob (near Dolly Sods North). One of his friends picked up a mortar shell. Dean looked at the ordnance, but paid little attention.

Before Dean knew what was happening, his friend dropped the shell and it exploded. Dean found himself wrapped around a tree, and the blast almost tore off his left leg and right foot. The nose of the shell and nine pieces of shrapnel were removed from his leg and foot. He was walking within a year of the accident, but scars remain.

In 1991, about 281 acres were searched in a feasibility study. A surface sweep (six inches deep) found seven rounds of unexploded munitions. A subsurface sweep (deeper than six inches) on 10.5 acres turned up six more.

The $1.1 million contract for the ordnance removal has been awarded to Human Factor Applications, Inc. The work, which began in May, is being done by certified ordnance removal experts who will detonate ordnance and remove the scrap along hiking trails and in camping areas. Because Dolly Sods is a designated wilderness, no vehicles are allowed, so all work must be done on foot.

Ordnance removal areas include 20.8 miles of trails which will be cleared to a depth of one foot 20 feet on each side of the trail, and 101 campsites which will be cleared to a depth of four feet.

Whenever possible, ordnance will be detonated in place. If that's not possible, it will be taken to a common area for detonation.

Every effort will be made to minimize impact to the environment. Each detonation site, which creates a 4x4- foot hole, will be restored to natural conditions as much as possible.

Safety is the U.S. Army Corps of Engineers' greatest concern. Public notices were placed in newspapers, and the U.S. Forest Service (USFS) posted a schedule. Work areas are closed to the public during removal and USFS personnel will be posted to establish a buffer zone to ensure public safety.

Contractors receive daily safety briefings and their work and safety plans have been reviewed by the Corps. Corps ordnance experts also will perform periodic quality checks of the contractors' work.

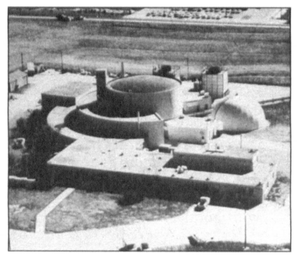
The USFS, U.S. Fish & Wildlife, and the West Virginia Division of Natural Resources are also giving the contractors on-site training on cultural resources and endangered species.

The Cheat Mountain salamander is one endangered species native to this area. If one is found where ordnance is discovered, it must be removed and packed in a cooler in moss. When the ordnance has been removed, the salamander must be returned to its natural environment.

Dolly Sods North is also scheduled for ordnance removal. Although it has not been declared a wilderness area, Rick Meadows, project manager, said it will be treated as such to avoid environmental impacts. Twenty-three miles of trails, 75 campsites and five hunter structures will be cleared. In addition, 98.9 acres of open land on Blackbird Knob will be cleared to a depth of one foot.

An environmental assessment is currently being conducted on Dolly Sods North. When completed, a contract can be awarded. Contract award is scheduled for August 1997. Both Dolly Sods Wilderness and Dolly Sods North are scheduled to be completed by November 1997.

According to Meadows, Huntington District support for the Dolly Sods clean-up includes engineering evaluations, cost analysis, and environmental assessments. The district has also developed the official administrative records — a collection of documents and reports used in deciding what remediation alternative would be used.



This is Chicago Pile 5 nuclear reactor at the Argonne National Laboratory. The Corps is helping the Department of Energy in decontaminating and decommissioning the heavy water research reactor. (Photo courtesy of Huntington District)

Corps aids in nuclear clean-up

By Mark D. Kessinger
Huntington District

The U.S. Army Corps of Engineers is helping the Department of Energy (DoE) decontaminate and decommission portions of vast nuclear weapons sites, and clean up environmental problems caused by 50 years of building nuclear weapons.

Like most industrial and manufacturing operations, the production of nuclear weapons generated wastes. But unlike other wastes, these have unique radiation hazards which will not fade for hundreds of years.

In the late 1980s, all major facilities in the nation's nuclear weapons industry were shut down temporarily. Because the end of the Cold War was so sudden, many of the facilities were not closed properly and much of the waste remains in temporary storage, posing environmental and health risks.

DoE currently owns and maintains more than 2,000 contaminated facilities that will require decontamination and decommissioning. It estimates that there are about 2,700 metric tons of spent fuel, 100 million gallons of high-level liquid waste (enough to fill 10,000 tanker trucks), 100 metric tons of plutonium, and thousands of tons of contaminated scrap metal, steel, and concrete.

DoE's Federal Energy Technology Center (FETC) in Morgantown, W.Va., works to develop innovative technology to decontaminate and decommission nuclear weapons facilities. In 1995, FETC executed an interagency agreement with the Army which allows the Corps of Engineers to assist DoE in a variety of areas, including clean-up of its nuclear weapons facilities.

Huntington District is the Army's program director for the agreement and assigns work to the nearest Corps district with the necessary expertise and resources.

The Corps played a major role in building the nuclear weapons industry in the 1940s, and is now a vital part of the team decontaminating and decommissioning these facilities. Currently, the Corps is assisting FETC at three sites — the Chicago Pile 5 Reactor at the Argonne National Laboratory, Fernald's Plant 1 near Cincinnati, Ohio, and Hanford Reservation's C-Reactor near Richland, Wash.

FETC's goal is to demonstrate innovative technologies to facilitate their use throughout the nuclear weapons industry. The Corps provides management support and cost engineering services to determine the effectiveness of processes tested at the sites.

The Chicago Pile 5 Reactor was a heavy-water uranium-fueled thermal reactor which operated for 25 years before its shutdown in 1979. Decontamination and decommissioning the reactor includes removing the reactor core and biological shield structure, decontaminating the rod storage area, and dismantling the structure.

A team of companies led by Duke Engineering and Services is evaluating and selecting technologies to be demonstrated. Walla Walla District, with assistance from Project, Time and Cost, Inc., is determining the cost savings from using innovative technologies. Chicago District is providing on-site support.

At Fernald, uranium ore was milled for distribution to other nuclear weapons sites. This generated low-level radioactive dust which settled on much of the plant. Fluor Daniel Fernald and its subcontractor, Babcock and Wilcox, is cleaning up the dust and dismantling Plant 1. Huntington District is preparing cost estimates of the innovative technologies demonstrated to remove the low-level radiation and dismantle the buildings.

In addition, the district and Foster Wheeler Environmental Corp. is evaluating the technologies selected for demonstration.

The C-Reactor is a full-scale surplus production reactor built quickly in 1951 to respond to increased Cold War tensions. The reactor started up in November 1952 and operations ended in April 1969.

The C-Reactor was scheduled to be the first of eight reactors at Hanford to be dismantled. However, due to site priorities and limited resources, DoE is exercising the option to maintain the reactor in safe storage for 75 to 100 years before final disposition. Bechtel Hanford has the lead for placing the C-Reactor in interim safe storage. Seattle District and its contractors, Montgomery Watson and Morrison Knudsen, are providing technical assistance. Walla Walla District is determining the costs of the innovative technologies used to place the C-Reactor in storage.

Under the Decontamination and Decommissioning Program, FETC plans to begin two new projects this year and three more in 1998.

(Mark D. Kessinger is the Army's National Program Manager for downsizing the nuclear weapons program.)

Justice Dept., Corps win seagrass damage case

By Ken Bonham
Galveston District

The Department of Justice, together with staffers from Galveston District's Regulatory Branch have registered a record-setting judgment in federal court against an oil company and four contractors charged with damaging about 40 acres of valuable seagrasses on the south Texas coast.

Fina Oil and Chemical Company and the contractors agreed to fines and restoration costs of more than $6 million in the landmark case which involved unauthorized propwashing in the Laguna Madre as the drilling company attempted to move an oil rig into position.

The lawsuit, brought by the U.S. in 1992, alleged that, in the process of moving the rig, the companies disturbed sediment and smothered the seagrass, violating federal laws which prohibit unpermitted filling in U.S. Waters.

Under the consent decree, filed in U.S. District Court in Houston, Fina Oil and its contractors will pay $2.28 million in civil fines, the heaviest civil penalty ever imposed for unlawfully filling wetlands or other marine habitat.

The companies also will restore the damaged seagrass bed and create another 37 acres of new seagrass habitat in the Laguna Madre, at an estimated cost of $4 million.

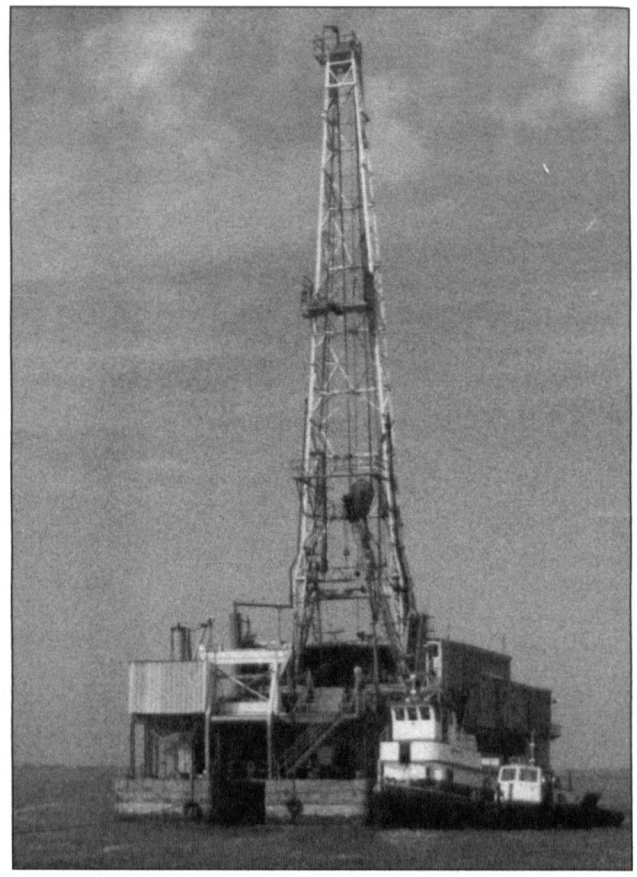
"This settlement will ensure that the people of south Texas and all Americans continue to enjoy the many environmental, commercial and recreational benefits that only a healthy Laguna Madre can provide," said Lois J. Schiffer, Assistant Attorney General in charge of the Justice Department's Environmental and Natural Resources Division.

Col. Eric R. Potts, Galveston District Engineer, commended the teamwork of the U.S. Attorney and the Department of Justice with the Corps, plus active support from the Texas General Land Office, Texas Parks and Wildlife Department, U.S. National Marine Fisheries Service, and U.S. Fish and Wildlife Service.

The Laguna Madre is one of three large "hypersaline" bodies of water in the world, according to Fred Anthamatten of Regulatory Branch. Seagrass in the laguna forms the foundation of the food chain of this unique ecosystem. The Laguna Madre is rich in valuable species like blue crab, redfish and several species of shrimp. It is also the primary food source for the endangered redheaded ducks that winter in the laguna.

Fina Oil received a permit from the U.S. Army Corps of Engineers in December 1990 to place a wellhead in the Laguna Madre, provided it used shallow draft vessels when moving the drilling rig and did not disturb the seagrass.

Casey Cutler, primary investigator for the Corps, said that the operation accidently grounded the rig on the laguna floor. They used large towboats to dislodge the rig, using their propellers to wash away enough of the bay bottom to free the rig. In the process, 37 acres of seagrass were destroyed.



Tugboats moving this oil platform destroyed 40 acres of seagrass. (Photo courtesy of Galveston District)

Fina Oil contractors included Belaire Consulting Inc., the oil company's environmental consultant; Grace Drilling Company, which provided the drill rig and moved it to the drilling location; Brown Water Marine Service Inc.; and Loyd W. Richards Construction Corp., owner and operator of the tugboats.

Sampling shows fish love bendway weirs

It's called *serendipity* — an action has an unexpected positive side-effect. Bendway weirs are an innovative, cost-effective means to maintain safe, dependable navigation channels on the Mississippi River. The fact that fish (*big* fish) love them is serendipity.

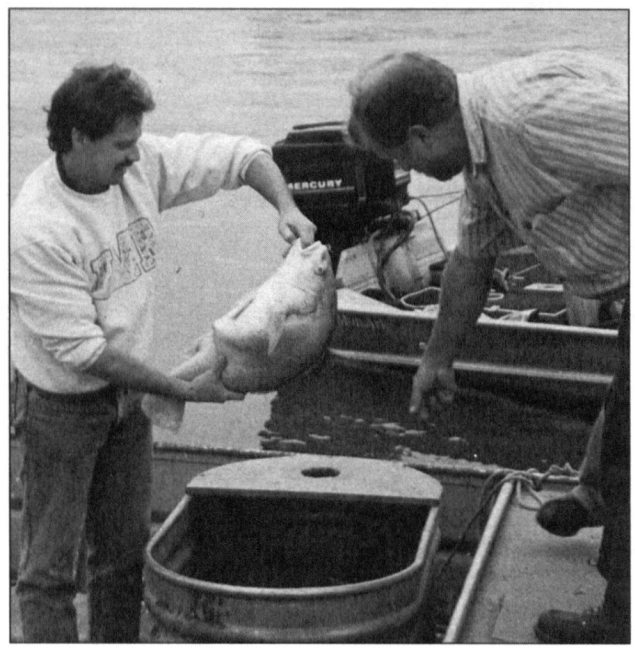
The weirs are a series of low stone walls built underwater, arranged spoke-like against the outside curve of a river bend. They direct the current toward the inside curve, which scours a deep, wide navigation channel. There are more than 100 weirs in 13 bends of the Mississippi River in St. Louis District.

The positive effect bendway weirs have on navigation is well-documented. Their effect on fish was unknown, particularly on pallid sturgeon, an endangered species that's almost unchanged since prehistoric times.

Data on the fish living in bendway weirs were needed for an environmental assessment, but there was an obstacle. Sampling in deep, fast water had never been done.

Conventional sampling, like electro-fishing and netting, has been limited to depths less than 20 feet and velocities below two to three feet per second. In a bendway weir field, depths can exceed 50 feet and velocities can exceed six feet per second.

The Deep Water Sampling Group, with members from St. Louis District, Mississippi Valley Division, Waterways Experiment Station, U.S. Fish and Wildlife Service, Long Term Resource Monitoring Stations, the Missouri Department of Conservation, the Illinois Department of Conservation, and Southern Illinois University, met numerous times to develop techniques to sample in deep, fast water.



Rob Davinroy (left), and Jerry Rapp examine a big fish taken at a bendway weir. (Photo courtesy of St. Louis District)

The final list included blasting, shocking, gill netting, trammel netting, trotlining, and hoop netting.

"Deep water fish sampling is something we hadn't done before," said Jerry Rapp, river engineer. "Our group, which included Fish and Wildlife, tried various methods which might work in deep water, including blasting.

"There's some fish mortality no matter what form of sampling you use," Rapp added. "Blasting kills fish, but no other method gives as accurate a count. You can't send down divers because the fish spook when they see them."

Special techniques were needed. Placing charges for the blast, weighting the nets and anchoring trotlines was done using buoy blocks from the *MV Pathfinder*. The Pathfinder also helped collect nets.

For the blast, each agency provided at least one catch boat to capture fish after detonation. In fast water, fish could surface hundreds of feet downstream, so several boats were required to cover the area.

Placing charges and catch nets in the bendway weir field took about six hours. When the blast went off the results were immediate — many fish began surfacing. In all, 217 fish in 13 different species were captured. There were 75 fresh-water drum up to 20 pounds, 58 gizzard shad, 24 blue catfish up to 35 pounds, and one sturgeon.

Other collection methods resulted in lesser catches. The method with the most promise was an electro-shocker on the Pathfinder. This could be lowered to depths exceeding 40 feet and a charge sent through the electrodes to stun fish. This worked well when stationary. Further modifications will be required to allow more maneuverability.

Water velocity and sediment movement in the bends caused the nets to move too much, and the trotlines and hoop nets silted over. The nets did make one significant catch — a sturgeon. The fact that sturgeon were collected proves they inhabit bendway weirs.

The group's environmental representatives will publish the results, and the methods will be refined.

Fifty years

Hydraulic designer looks back on half-century in Corps

By Bernard W. Tate
HQUSACE

After a career that spanned World War II and 50 years in the U.S. Army Corps of Engineers as a hydraulic engineer, Sam Powell retired on April 30 as the Chief of Hydraulic Design Section in headquarters.

Powell, 77, joined the Corps in 1947 for a simple reason — "I needed a job!" He had been senior draftsman with the Glen Martin Co. in Baltimore, Md., after serving in World War II. "Martin lost all their Navy contracts, so they laid off 2,000 of their 3,000 engineers. I was acquainted with working in the airplane industry, and the automotive industry, and I said 'No way!'"

He and his wife, Ruby, decided to live with Powell's grandmother in Portland, Ore., while he looked for a job. How Powell landed a job with the Corps probably wouldn't fly today.

"I went downtown to the Corps of Engineers," he said. "I walked into the personnel office and asked to see the personnel officer. They said he wouldn't be back until that afternoon, and here's a form to fill out. I asked if I could come back and see the personnel officer when he returned, and they said that would be fine.

"I went back and he said they didn't have any openings then," Powell said. "I asked if he could introduce me to some of the engineers so I could find out what kind of work the Corps does.

"So he took me down to George Hyde in the Hydraulic Design Section," Powell said. "George and I talked for half an hour or so, then he said, 'Wait a minute while I see someone.' He came back and said, 'Can you come to work tomorrow?' I said, 'My furniture's on the way and it's supposed to be delivered tomorrow. How about Monday?' And he said OK and we shook on it."

Powell was hired as a temporary, which lasted a couple of years until he could convert to permanent status. His job was not the only thing that became permanent. The hydraulic design field fascinated him for 50 years.

"The work was good," Powell said. Among other things, he worked on several dams on the Willamette River tributaries in Oregon, and The Dalles Dam on the Columbia River at the border of Oregon and Washington. "There's nothing more challenging than what the Corps does, or at least what I did in hydraulic design. The Corps handles the water, and where the water runs up against boundaries, that's where hydraulic design people are, whether it's a spillway, a stilling basin, a conduit, a riverbank, or the shape of a bend. It's also in coastal work where the waves hit the shore, and in navigation where the big ships ride.

On Aug. 3, 1979, Sam Powell (left) helped John Gray see what would happen if a spillway were narrower. They are working with a model at the Waterways Experiment Station while Wayne McIntosh looks on. (Photo by Charles Ray, WES)

"For me, it was the most fascinating part of the Corps," said Powell. "Some architect-engineering firms pay more money, but you have dry spells between jobs, and you might end up doing the same thing for them for years. In the Corps, we didn't have to worry about finding new work each year. All you have to worry about is doing a good job and getting promoted once in a while."

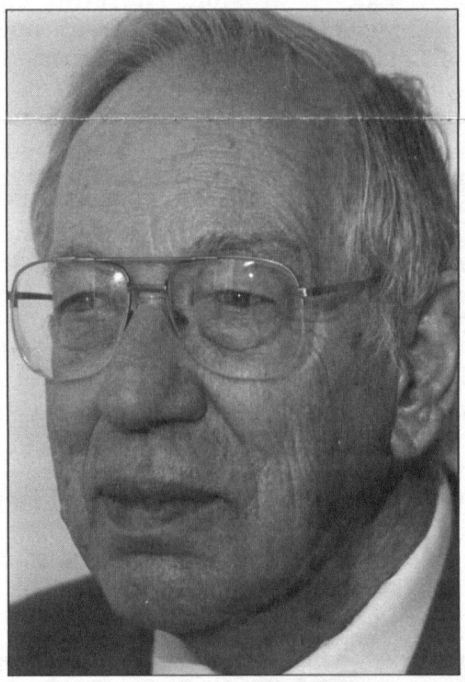
That doesn't mean Powell has a Pollyanna attitude. Fifty years brings a lot of change. "The biggest changes I saw in the Corps are the ones they're going through right now, the downsizing and all that," he said.

And Powell doesn't like all the changes he saw. "We've cut way back on travel, which in the past couple-three years began to hurt because we lost contact with the field. Sometimes when there's a problem you need to go out and talk to the people doing the work. You have to see the problem for yourself. You all have a conference and decide what needs to be done, then it can move ahead.

"You can't write all that out," Powell said. "They can't write everything about the problem to you, and you can't write and tell them how to straighten up and fly right. You either need to be of assistance in person, or get somebody on the job that you know can help."

On the other hand, Powell says some things did *not* change during those 50 years.

"So far, we've managed to keep up with, and lead, in all disciplines," Powell said. "The Corps developed all the major designs of large concrete dams — the spillways, outlet works and what-have-you. Our manuals are being taken directly



Sam Powell retired on April 30 after 50 years in the U.S. Army Corps of Engineers. (Photo by F.T. Eyre, HQUSACE)

and used by the civilian engineering industry. We get a great call for these things.

"But we couldn't just lie back and rest on our laurels; we had to keep pushing," Powell added. "We always had good work to do, and it was always a lot of fun to dive in and see what you could do to make your designs better, less costly, more efficient, and longer-lived."

Powell spent a lot of time on the road in his 50 years. He kept a file of the travel orders he used while working in headquarters, and the file was two feet thick. The travel not only helped Powell do his job better, it gave him some of his best stories.

"Mount St. Helens was fascinating," Powell said. "We faced a set of complete unknowns. I made a number of trips out there, three or four a year for a good long while. I'll never forget one time we went up there and had a helicopter fly us to the upper ends where the sediment had been deposited. We were afraid it had backed up into temporary lakes and that they were going to break out and cause mud-flows downstream.

"We asked the helicopter pilot if he could fly us over the crater, and he said 'I can do better than that; I can fly you *into* the crater,'" Powell said. "So I've got photos looking *up* at the rim of the cone. We finally built some structures at Mount St. Helens to handle sediment flows."

That wasn't the only excitement Powell had during his federal career. He also served in World War II as a tank officer. He graduated from Norwich University, Vt., in June of 1941 and 20 days later was on active duty with the 4th Armored Division.

"In those days ROTC graduates spent one year on active duty, then returned home," said Powell. "But, in my case, when December 7, 1941, came along, there I was for duration of the war."

Powell spent World War II as a tanker, mostly with the 16th Armored Division, 8th Tank Battalion, first as headquarters company commander, then as battalion supply officer.

"Eventually our division went to Europe," Powell said. "We put our tanks on rail flat-cars and sent them to the Rhine River. We road-marched our wheeled vehicles up there, picked up our tanks and road-marched to Pilzen, Czechoslovakia. We got orders to attack Pilzen and, as we approached, the Czech army rose from their hiding places, put all the Germans in the stockade, and we had a triumphant march through Pilzen with wine and kisses and flowers."

Powell got out of the active Army in 1946, transferred his commission to the engineers, and retired in 1975 as a lieutenant colonel after 23 years in the Army Reserves. After his wife had a heart attack, he retired from the Corps on April 30 to care for her full-time. They have three grown children and six grandchildren.

After all those years of military and engineering experience, what advice would Powell give young people just starting their careers?

"When you get an assignment, the boss may tell how it should be done, but you need to find out *why* it should be that way. What's the *reason* behind what your boss told you? How does it work? Is that the latest way to do it, or do you know something better? That's how you become more proficient and knowledgeable in your field. That's how you build a reputation, and advancement will come as you show your capability."

High school students dig artifacts, ancient culture

"Look what I found," yelled April Goceiher, a student from Clarkrange High School. Her fellow students gathered around to see what she uncovered. "A spear point, handmade by an early culture that once inhabited this region," said Hank McKelway, supervisory archeologist.

This happened at an archeological dig at the Nineteenth Annual Dale Hollow Lake Environmental Education Camp.

"We try to involve the students in as many hands-on opportunities to learn about their environment as we can," said Sondra Hafling, camp coordinator. "We had just concluded an on-site, contracted survey of Dale Hollow Lake. The survey determined areas with significant archeological and historical resources. The timing was perfect to incorporate it into our camp."

The camp is sponsored by Nashville District and held each spring at the Dale Hollow Dam Campground in Celina, Tenn. The four-day camp gives students an opportunity to study many environmental topics such as stream studies, water safety, canoeing, outdoor cooking, hydrology, and solid waste issues.

But the highlight this year was the full-scale archeological dig.

On May 8, 45 students and 10 volunteers and staff traveled by barge across Dale Hollow Lake to the site. It had been prepared by archeologists from Cultural Resource Analysts, Inc. of Lexington, Ky. Shovels and screens in hand, the students descended on nine excavation areas.

"There are two things of importance here," said McKelway. "First, this is an educational opportunity for the Corps and cultural resource analysts to give people a chance to participate in archeology. The other thing we are after is to start building a foundation for understanding the prehistoric occupation around Dale Hollow Lake."

Groups of five students each were organized. Each group assigned people to dig and measure the site, screen removed material, and bag and document artifacts. Each group dug 20 centimeters deep into the nine meter-square excavation units.

This was a small excavation, but by day's end they had uncovered an enormous number of artifacts. They retrieved 8,600 pieces of flake debris (debris left when stone tools are made by hand), 50 tools and implements, and more than 20 pieces of pottery. This density of material proves intense human occupation for several thousand years.

Many students were unaware that a sliver of rock could be significant. Archeologists explained that, as various peoples inhabited the area, they left residue of their lifestyles. This site contains history from 7000 B.C. to about 1940.

This experience allowed the students to participate in archeological detective work. Objects they found will help answer questions about how past people lived in the Obey River Basin.

The benefits of the dig will not end with the excavation. Artifacts salvaged by the campers will be inventoried by Cultural Resources Analysis, Inc., and the results returned to the Corps. This information will assist the Corps in making decisions about developed areas, future construction projects, and protecting areas from illegal collecting.

During the dig, the students learned the legal requirements for an archeological survey, proper excavation techniques, observation of eroding bank lines, interpretation of structural remains, and known history of the site.

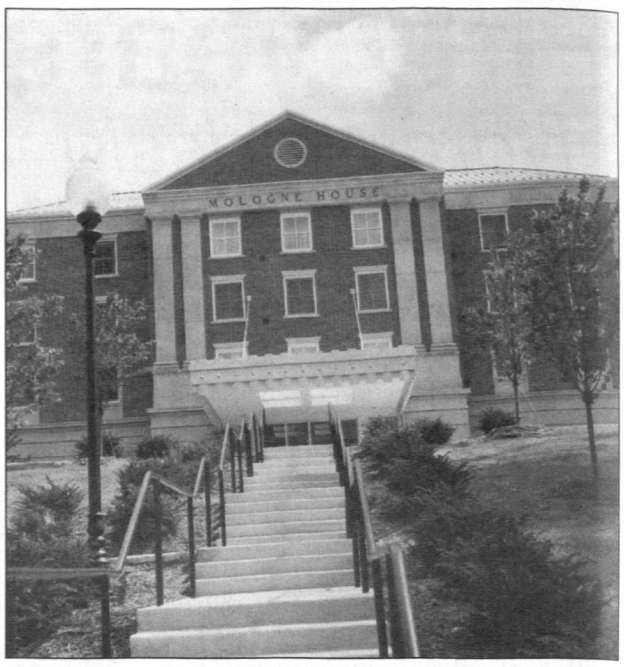
At day's end, the students got an overall review with emphasis on protecting cultural resources. The loss of these cultural resources from bank erosion, shoreline camping, and recreational overuse is of great concern.

Worse is destruction by souvenir hunters. The destruction, defacement, removal, or alteration of public property, including historical and archaeological features, is illegal and punishable by fine or imprisonment.

Teachers, staff and volunteers said the camp is a learning experience for everyone involved. "When I was in high school, I came to this camp a couple of times and really learned a lot about the environment, about the things the Corps does here, and the importance of their work," said Todd Burnett, a volunteer with Clarkrange High School. "I think this camp and archeology dig is a really worthwhile program."

"It's important to respect and preserve our cultural past," said Franklin Massa, Dale Hollow Lake Resource Manager. "Preserving these areas is just as important as protecting and preserving our environment. That's why we involve students in active awareness programs."

Clarkrange High School students carefully work their way around a tree root as they dig at the archeology site. (Photo by Sondra Hafling, Nashville District)



The architecture of the Mologne House is Georgian Revival to blend in with the rest of Walter Reed Army Medical Center. (Photo courtesy of Baltimore District)

Baltimore builds New Army hotel

By Denise Tann
Baltimore District

Walter Reed Army Medical Center, known world-wide as one of America's best medical facilities, now offers the 200-room Mologne House Hotel. Named for Maj. Gen. Lewis A. Mologne, a former Walter Reed commander who died in 1988, the 95,000-square-foot building is the Army's newest hotel. It opened in late April.

The hotel "was built primarily for Walter Reed outpatients and their families, and transitory military personnel, but government employees may also use the facility," said James Simms, Baltimore District's Bay Area Office project engineer. The district had responsibility for building the Mologne House.

The four-story hotel was built in Georgian Revival style to blend in with the rest of the hospital's architecture. Construction began in February 1996. The $16 million the hotel sits on two acres at the medical center complex in Washington, D.C.

The hotel offers five room types ranging from standard to executive suites. All rooms feature two double beds, a color television and videotape player, cable access, kitchenette, sofa-bed, and writing desk. It also has such amenities as a food and beverage facility, gift shop, meeting space, and free parking.

Guests also have access to special amenities such as in-room safes, coffee makers, toiletries, an on-site tour coordinator, and a one-stop conference, wedding, reunion or convention planning center.

The rates are well below Washington area rates, ranging from $58 for a standard room to $70 for a two-room executive suite.

According to Simms, the facility was built with non-appropriated funding by the Morale, Welfare and Recreation Fund. The hotel will service government employees with identification, both military and civilians; active and retired soldiers and their family members. Non-government family members visiting patients in the hospital are also eligible to use the facility.

Reservations for the Mologne House Hotel can be made by calling 202-782-4600, or the Army's reservation line at 1-800-GO-ARMY ONE.

Around the Corps

SES news

The Secretary of the Army honored the 1996 Presidential Rank awardees at a Pentagon ceremony on April 11. Distinguished Service or Meritorious Service awards are given to career Senior Executive Service members. The Distinguished Service award carries a $20,000 stipend, and the Meritorious Service award has $10,000.

The 1996 U.S. Army Corps of Engineers awardees were:

- Jimmy Bates (retired), former Deputy Director of Civil Works.
- Walter Boge (retired), former Director of the Topographical Engineering Center.
- Dr. Robert Oswald (retired), former Director of Research and Development.
- John D'Aniello, Deputy Director of Civil Works.
- Dr. William Marcuson, Director of the Geotechnical Lab at the Waterways Experiment Station.

Bates won the Distinguished Service Award; all the rest won Meritorious Service awards.

All 1996 Distinguished Award winners were honored at a ceremony hosted by President Clinton on April 10.

National Archive award

Beverly Gold, New England District's Records Manager, received an achievement award from the National Archives on April 2 in a ceremony at the Federal Records Center in Waltham, Mass.

Diane LeBlanc, Regional Administrator for the Northeast Region of the National Archives and Records Administration, presented Gold the award for her commitment to records management excellence, and her efforts to improve reference processing procedures at New England District.

LeBlanc personally nominated Gold for the award.

"She (Gold) has an incredible knowledge of records management," said LeBlanc. "She's been working hard explaining to district employees how important records management is."

As Records Manager, Gold gives hands-on records management guidance and addresses concerns regarding files from the time they are created to disposal or retirement.

Pathfinder crew

The crew of St. Louis District's patrol boat *Pathfinder* has received the U.S. Coast Guard (USCG) Public Service Commendation Award. Rear Admiral Timothy W. Josiah, commander of the 8th Coast Guard District, presented the award for help they gave the USCG cutters *Cheyenne* and *Sumac* last January during emergency aid to navigation operations on the Upper Mississippi River.

The *Pathfinder* crew worked more than 69 hours in less than seven days to set or recover 126 buoys. All buoys in the open river between St. Louis, Mo., and Cairo, Ill., had been displaced by a swift, severe run of ice after a quick warm-up in the upper Midwest. The crew's action and eagerness to render aid in an emergency helped quickly reopen the river to navigation.

In his remarks, Josiah said the crew of the *Pathfinder* are unsung heroes on the waterways, and praised the close working relationship between the Coast Guard and the U.S. Army Corps of Engineers.

Chemical demilitarization

A groundbreaking ceremony in May marked the symbolic beginning of construction of the chemical agent disposal facility at Umatilla Army Chemical Depot in Oregon. It will be the third chem demil facility in the continental U.S. The Huntsville Engineering and Support Center recently awarded a systems contract to the Raytheon Demilitarization Company.

Huntsville is the life-cycle project manager for the design, construction, equipment acquisition, and installation for all chem demil facilities in the U.S. Seattle District is responsible for executing depot support projects such as roads and utilities at Umatilla.

The $567 million contract for the Umatilla facility was awarded to the Raytheon Demilitarization Company. Raytheon is the prime systems contractor for the chem demil plant now operating on Johnston Atoll in the Pacific Ocean.

Raytheon's proposed cost for the Umatilla systems contract is about $138 million. This part of the contract, plus the $124 million equipment installation portion, will be administered by Huntsville Center's Construction Directorate. Full construction began the first week of June, and should be complete in 2000.

National Historic Engineering Landmark

On July 5, Edward Groff, President of the American Society of Civil Engineers, presented a plaque designating the Lake Washington Ship Canal and the Hiram M. Chittenden Locks as a National Historic Civil Engineering Landmark.

The Historic Civil Engineering Landmark program recognizes civil engineering projects that made a significant contribution to the U.S. and the profession of civil engineering.

Built between 1911 and 1917, the ship canal and locks opened up 100 miles of fresh water shoreline for marine development. This influenced the historic development of Seattle as a major west coast port, and Puget Sound as the gateway to Alaska and Pacific Rim. The large lock is the longest on the west coast, and the only lock in the U.S. that can handle ocean-going vessels.

Morris honored

Lt. Gen. (Ret.) John W. Morris has received the 1997 Gold deFleury Medal. Lt. Gen. Joe N. Ballard, Chief of Engineers, presented the prestigious award to Morris during the recent Army Engineer Regimental Dinner at Fort Leonard Wood, Mo.

The Gold deFleury is awarded annually by the Army Engineer Association to a distinguished American with a military or civilian career of exceptionally significant and outstanding support and service to the U.S.

Morris' service to the nation, the Army, and the Corps of Engineers exceeds 50 years. Among other achievements, he became the 44th Chief of Engineers in 1976. During Morris' tenure as Chief, the Office of Chief of Engineers and its subordinate commands and activities became an Army major command, the U.S. Army Corps of Engineers. He established the Directorate of Military Programs, and developed a program to provide responsive support and assistance to installation facilities engineers.

Crystal Award

The Small Business Administration has given two Crystal Awards to Philadelphia District.

John Sheplock, a small and disadvantaged business utilization specialist, received a Crystal Award for his record of successfully providing contracts for minority small businesses.

Philadelphia District received a Crystal Award for assisting small disadvantaged concerns through government contracts and business development assistance. In fiscal year 1996, the district awarded seven contracts totaling $3,143,402. Lt. Col. Robert Keyser, District Engineer, accepted the award for the district.

Bush dedicates project park

Article and Photo
By Ken Bonham
Galveston District

Former president George Bush unveils the new name of the park. With Bush are Steve Radack, County Commissioner, and Col. Eric R. Potts, Galveston District Engineer.

Former President George Bush mixed quips on parachuting with compliments for the U.S. Army Corps of Engineers while taking part in the rededication and name change for George Bush Park in Galveston District's Barker Reservoir in Houston.

"I noticed a terrible omission in the sporting events that can be celebrated in this marvelous park," Bush told the crowd. "Look at all this space! It seems to me there should be a certified zone for parachute landings." The former president was referring to his recent parachute jump at the age of age 72.

George Bush Park covers 7,800 acres in Barker Reservoir, which has 12,500 acres of flood-water detention capacity. Barker Reservoir and neighboring Addicks Reservoir protect downtown Houston.

Bush remarked that a lot of people do not know what the Corps of Engineers does. "But I do, and I have a great respect for their commitment to conservation and to the environment."

Bush, who represented this part of Houston as a congressman during the 1960s, commented that sometimes everything is caught up in political arguments. "But this district under Colonel (Eric R.) Potts does a magnificent job for our coastline, and I salute him."

Addicks and Barker Reservoirs cost $69.5 million, including lands, construction, and operation and maintenance costs during the past 50 years, Potts said in his remarks. "To date, these reservoirs are credited with preventing $1.6 billion in flood damages."

Humor helps relieve CEFMS stress

*'CEFMS does not mean **C**an't **E**ven **F**ind **M**y **S**creen'*

By Joyce Tsai
New Orleans District

A reprieve from the stress of changing over to the Corps of Engineers Financial Management System (CEFMS) came to New Orleans District in the form of two guys with a humorous, affirming CEFMS message and blues music.

The CEFMS Brothers, sporting black suits, black hats, sunglasses, and crooning *I'm a CEFMS Man* to the tune of *Soul Man,* delighted district employees when they interrupted the district engineer's introductory "words of encouragement" at a CEFMS town hall meeting on May 7.

The CEFMS Brothers, Greg DeBose and Mike Maples, won laughter and applause from the astonished audience, and offered a new perspective on converting to the new financial management system.

"The fact of the matter is that CEFMS does not mean '**C**an't **E**ven **F**ind **M**y **S**creen,'" they quipped. "CEFMS doesn't have to be a big bad headache. It can be fun and enable us to work faster and provide a better quality Corps of Engineers product. It can bring both transition and tranquility."

The CEFMS transition has been taking place at U.S. Army Corps of Engineers districts nationwide. In New Orleans District, deployment began at the end of 1996 with the goal of replacing the COEMIS system with CEFMS by June 16. By the end of June, all district employees were trained in CEFMS.

The CEFMS Brothers also officially changed the name of the one-month period between shutting down COEMIS in the district and starting up CEFMS. The comic, musical duo changed the rather foreboding "blackout period" to "transition mission."

"We envision the word 'blackout' as a group of people walking around aimlessly in the dark, so we're here to change all that," the CEFMS Brothers declared.

They also gave roses to the district's Finance and Accounting (F&A) employees, who worked for six months to make the new system operational by mid-June.

Besides the town hall meeting, the CEFMS Brothers have dropped into the cafeteria, training sessions, and the district engineer annual picnic, handing out CEFMS candy bars, autographs, photos, and reserved parking spaces to educate and show their appreciation for district employees who are dealing with CEFMS deployment.

"This was an excellent window of opportunity to show our co-workers that we realize they had a hard job and we appreciate their efforts," said DeBose, who is a hydrologic technician when he's not a CEFMS Brother.

The CEFMS Brothers, Greg DeBose (left) and Mike Maples, are on a mission to make the transition to CEFMS easier in New Orleans District. (Photo courtesy of New Orleans District)

Since their debut, the CEFMS Brothers have become a district-wide sensation. So many of their photos have been pinned up in cubicles, elevators, and doors all over the district that the CEFMS Brothers have become the unofficial poster-boys for the district CEFMS program.

There's even fan mail.

"Some people write me fan mail with suggestions on how the next bit can go," said Maples, chief of the Reprographics Section. "A lot of times they'll offer CEFMS terminology to add to the humor. For instance, we roam the halls quizzing passersby on basic CEFMS information. We've had people suggest we call it F2ing or F3ing people in the hall, which are the keys you press to initiate a query and execute a query in CEFMS.

"In training sessions, people will joke and sometimes ask, 'What would the CEFMS Brothers say about that?' Or on sample purchase requests they'll write, 'To buy new sunglasses for the CEFMS Brothers,'" said Maples.

Jo Ann Rosenfeld, hydrologic technician, said that she's never seen anything like it. "It really took hold quickly, starting with their first appearance at the town hall," she said. "Everybody was shocked and surprised, and laughter broke out immediately. There seemed to be an instant recognition, and after that everyone just sat back and relaxed and enjoyed the show."

Gloria Reeves, Chief of F&A and CEFMS Conversion Manager, also was surprised and pleased with their act. "It helped keep our spirits up," Reeves said. "The CEFMS Brothers helped people realize what a big undertaking this is. After their act, the positive comments increased and more people came by to shake my hand and show us they appreciated our efforts."

CEFMS Deployment Coordinator Bob Fairless said the idea for the CEFMS Brothers came from a brainstorming session with Rob Brown, public affairs specialist, and Maples.

"Bob and the colonel asked us to put a positive light on advertising and promoting CEFMS," said Maples. "Rob and I thought of the CEFMS Brothers, then we looked for someone with a black suit who would volunteer. Like the guy who gets invited to the ballgame beause he's the only one with a ball, I got chosen by default. After some polite coercion, Greg admitted he had a black suit, too."

"The CEFMS Brothers are definitely unique," said Fairless. "A lot of districts have used the same things we have — the visual information network, the local area network, town hall meetings, posters, and so on. Some even have uniforms for the trainers. But this is something different and enjoyable. It's keeping people aware, and the humor is valuable. We're so serious about all this stuff, it's good to get perspective."

"It's ballooned into something bigger than any of us imagined," said Maples. "The notoriety that the CEFMS Brothers has brought me has taken a life of its own." He said that every day he's stopped by people who recognize him and ask, "Will I get a rose?" "Can I get an autographed picture?"

Fairless believes that so many people want the autographed CEFMS Brothers photos because they are a souvenir of a difficult, rewarding rite of passage.

"It's something to remind everyone what we were going through, all the worrying and stress, and an acknowledgment of the fact that someday people will be able to look back and laugh about it," said Fairless.